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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/602,476

06/24/2003

Nagesh R. Basavanhally

Basavanhally 31-3

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02/15/2006

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EXAMINER

CHIEM, DINH D

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,476

Applicant(s)

BASAVANHALLY ET AL.

Examiner

Erin D. Chiem

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-8, 10 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 11, 12 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This office action is in response to election/restriction filed on November 09, 2005.

Currently, claims 1-20 are pending.

Election/Restrictions

Applicant's election with traverse of Species A and D in the reply filed on November 09, 2005 is acknowledged. The traversal is on the following ground(s):

1. The species are not mutually exclusive.
2. Claims 11 and 12 must be examined.
3. The claims cited as drawn to Species B is incorrect, thus claims 4-5 and 7-8 must be examined with the elected Species A and D.
4. The claim recited as drawn to Species C is incorrect, thus claim 13 must be examined with the elected Species A and D.
5. Claim 17 is not generic; claim 1 is defined as the generic claim of the elected Species A and D.

The examiner's response to applicant's arguments are as followed:

1. The species are shown in the figures to not be mutually exclusive because the system operating under one sensor and one filter, or two sensors and one filter, or two sensors and two filters are functionally and structurally exclusive. The examiner invites applicant to provide evidence that these species are NOT

mutually exclusive, in which the evidence provided by the applicant may be used to in the examiner's rejection.

2. Claims 11 and 12 will be examined with the elected Species A and D.
3. The applicant further clarified claims 4-8 via the telephonic interview and the examiner agrees that only claim 6 recites the "second optical filter." However, applicant elected Species A and D which are drawn to a single sensor and a single filter, therefore claims 4-8 does not read upon the elected species.
4. The applicant further clarified claim 13 via the telephonic interview and the examiner agrees that only claim 13 recites "a plurality of sensors." However, applicant elected Species A and D which are drawn to a single sensor and a single filter, therefore claims 13 having a plurality of sensors does not read upon the elected species.
5. Examiner is persuaded by applicant that claim 1 is generic and not 17 in the telephonic interview.

In summary, with respect to applicant's election of Species A, a sensing system comprising one sensor and one filter, and Species D, a sensing system having a single sensor and a single filter. Currently claims 1-3, 9, 11, 12, and 17-20 are drawn to the elected Species A and D.

Here are the reasons why the remaining claims are not drawn to the elected Species A and D:

Claim 4 recites *—a second sensor—*

Claim 5 recites *—a second sensor—*

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Claim 6 is dependent on 4 and recites *—a second optical filter—*

Claim 7 is dependent on 4 and recites *—a second sensor—*

Claim 8 is dependent on 4 and recites is dependent on 4 and recites *—a second sensor—*

Claim 10 recites *—an interrogation device optically coupled to the fiber and adapted to (i) generate the interrogating light and (ii) detect the optical response—*according to the instant recitation, the examiner considers the claim defines a second sensor.

Claim 13 recites *—a plurality of sensors—*

Claim 14 is dependent on claim 13

Claim 15 recites *—a second sensor—*

Claim 16 recites *—a second sensor—*

Having clearly provided support to examiner's species restriction and response to applicant's arguments, applicant's arguments for withdrawing the restriction requirement is not persuasive

The requirement is still deemed proper and is therefore made FINAL.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation wherein the sensor protrudes through the internal and external tubes must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The current Fig. 1 and 5 does not show the sensor protrudes from the inner and outer tubes and specifically Fig. 5 is an exploded view of the

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sensing system and not an assembled view of the sensing system, thus the examiner cannot consider Fig. 5 to show the sensors being protruded from the inner and outer tubes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-3, 9, 12, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurtz et al. (US 5,569,626 “Kurtz” hereinafter).

Kurtz discloses (entire patent, see Fig. 1A and all of Figs. 3) a sensing system adapted to measure one or more values corresponding to one or more physical parameters, the system comprising:

a first (12) sensor mounted onto a side of an optical fiber and optically coupled to said fiber, wherein, when interrogated with light coupled into the fiber, the first sensor generates an optical response corresponding to a first value of a first physical parameter to provide a measure of the first value;

a first optical filter (30) inserted into the fiber oriented at about 45° with respect to the longitudinal axis of the fiber, wherein the first filter is adapted to direct light corresponding to the first sensor between the fiber and the first sensor.

Regarding claim 9, wherein the light corresponding to the first sensor is substantially monochromatic light (col. 4, lines 34-36).

Regarding claims 12 and 19, wherein the first sensor comprises a first layer (214) supported on a substrate (216), the first layer having a portion adapted to move (214) with respect to the substrate under influence of the first physical parameter; a second layer (212) supported on and fixed with respect to the substrate, wherein the first and second layers form a sealed chamber physically (col. 7, lines 38-47) connected and optically coupled to the fiber, wherein: when the portion is moved, the reflectivity of the chamber changes.

Regarding claim 20, the limitation of the method of coupling of the optical device is not patentably distinct from the device limitations because the method steps do not functionally and structurally differentiate from the required steps of for the device assembly as taught by Kurtz.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz in view of Leschinsky et al. (US 6,602,270 "Leschinsky" hereinafter).

Kurtz discloses a sensing system adapted to measure one or more values corresponding to one or more physical parameters, the system comprising:

a first (12) sensor mounted onto a side of an optical fiber and optically coupled to said fiber, wherein, when interrogated with light coupled into the fiber, the first sensor generates an optical response corresponding to a first value of a first physical parameter to provide a measure of the first value;

a first optical filter (30) inserted into the fiber oriented at about 45° with respect to the longitudinal axis of the fiber, wherein the first filter is adapted to direct light corresponding to the first sensor between the fiber and the first sensor.

However, Kurtz does not explicitly disclose a catheter having an external tube and an internal tube enclosed by the external tube, wherein:

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- the internal tube accommodates the fiber;
- the first sensor protrudes through the internal and external tubes;
- the first physical parameter is pressure; and
- the system is adapted to measure blood pressure in a blood vessel.

As disclosed by the applicant in the Specification on page 5 line 29 spanning to page 6, line 15 that such catheter holding a blood pressure sensor is known in the art and here evidenced by US Patent 6,602,270 B2 assigned to DataScope.

Leschinsky discloses (entire reference, see Fig. 1 and claim 1) a catheter having an external tube and an internal tube enclosed by the external tube, wherein:

- the internal tube accommodates the fiber (30);
- the first sensor protrudes through the internal and external tubes (36);
- the first physical parameter is pressure; and

the system is adapted to measure blood pressure in a blood vessel for the purpose of intravenous treatment.

Since Kurtz and Leschinsky are both from the same field of endeavor, the purpose disclosed by Leschinsky would have been recognized in the pertinent art of Kurtz.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to attach Kurtz sensor, having a size on the order of 0.0003 to 0.015 inches thick, mounted onto a side of the fiber for use such as a catheter would have been obvious. **The motivation** for employing Kurtz sensor to Leschinsky catheter is the compact size of Kurtz sensor will meet the size limitation of Leschinsky compact catheter that will allow blood flow during intravenous treatment.

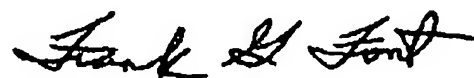
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin D Chiem
Examiner
Art Unit 2883



Frank G. Font
Supervisory Primary Examiner
Technology Center 2800